

Amendments to the Claims:

1. (Currently Amended) ~~[[Method]]~~ A method for measuring ultrahigh vacuum comprising the step of: by means of

(a) providing an ultrahigh-vacuum cold cathode pressure gauge; and ~~[[,~~
characterized in that the]]

(b) varying a voltage on ~~[[the]]~~ an anode of the pressure cell ~~[[varies]]~~ with
pressure in such a way that ~~[[the]]~~ an ion current flow is maintained substantially at its
maximum value at all times, wherein ~~[[the]]~~ a voltage-controlled source preliminarily
scans ~~[[the]]~~ a whole voltage range, ~~preferably between 1 kV and 12 kV,~~ in a
relatively short time, and subsequently sets the source to the voltage, at which the
current ~~[[was]]~~ is substantially at its maximum value.

2. (Currently Amended) ~~[[Method]]~~ A method for measuring ultrahigh vacuum
comprising the step of: [[by means of]]

(a) providing an ultrahigh-vacuum cold cathode pressure gauge; and ~~[[,~~
characterized in that the]]

(b) varying a voltage on ~~[[the]]~~ an anode of the pressure cell ~~[[varies]]~~ with
pressure in such a way that ~~[[the]]~~ an ion current flow is maintained substantially at its
maximum value at all times, wherein ~~[[the]]~~ a voltage-controlled source, based on the
calibration of the gauge, ~~will set~~ sets the voltage, for a given pressure, to the value
that has been previously stored as substantially optimal.

3. (Currently Amended) ~~[[Device]]~~ A device for measuring ultrahigh vacuum,
~~[[wherein]]~~ the said device ~~[[is]]~~ comprising:

(a) an ultrahigh-vacuum cold cathode pressure gauge, ~~characterized in that the~~
comprising an anode, and ~~(1) of the pressure gauge cell is connected to~~

(b) _____ a voltage-controlled source ~~[[(3)]]~~ in communication with said anode, wherein
said source, ~~in turn, being~~ is controlled in such a manner that ~~[[the]]~~ an output voltage
of the voltage-controlled source ~~[[(3)]]~~ varies with pressure so as to maintain ~~[[the]]~~
an ion current substantially at its maximum level at all times.

4. (Currently Amended) ~~[[Device]]~~ The device according to Claim 3,
~~characterized in that wherein~~ the voltage-controlled source ~~[[(3)]]~~ by means of the gauge
preliminarily scans the whole voltage range, ~~preferably between 1 kV and 12 kV,~~ in a
relatively short time, and subsequently sets the source to the voltage, at which the current
~~[[was]]~~ is substantially at its maximum value.

5. (Currently Amended) ~~[[Device]]~~ The device according to Claim 3,
~~characterized in that wherein~~ based on ~~[[the]]~~ a calibration of the gauge, a computerized
source ~~[[(3)]]~~ is employed, which will set the voltage, for a given pressure, to the value that
has been previously stored as optimal.

6. (Currently Amended) ~~[[Device]]~~ The device according to Claim 3 ~~Claims 3 to~~
~~5, characterized in that wherein~~ the pressure gauge cell is any one of a magnetron pressure
gauge cell or an inverted magnetron pressure gauge cell or a Penning pressure gauge cell.

7. (Currently Amended) ~~[[Device]]~~ The device according to Claim 4 ~~Claims 3 to~~
~~5, characterized in that wherein~~ the pressure gauge cell is any one of a magnetron pressure
gauge cell or an inverted magnetron pressure gauge cell or a Penning pressure gauge cell.

8. (Currently Amended) ~~[[Device]]~~ The device according to Claim 5 ~~Claims 3 to~~
~~5, characterized in that wherein~~ the pressure gauge cell is any one of a magnetron pressure
gauge cell or an inverted magnetron pressure gauge cell or a Penning pressure gauge cell.

9. (New) The device according to Claim 1, wherein the whole voltage range comprises between about 1 kV and about 12 kV.

10. (New) The device according to Claim 4, wherein the whole voltage range comprises between about 1 kV and about 12 kV.